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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,647	08/17/2006	Jens Richter	016906-0464	7541
22428 7590 10/14/2008 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007				
EXAMINER WALBERG, TERESA J				
ART UNIT		PAPER NUMBER		
3744				
MAIL DATE		DELIVERY MODE		
10/14/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/566,647

Applicant(s)

RICHTER, JENS

Examiner

Teresa J. Walberg

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 15-31 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 01 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 15-31 are rejected under 35 U.S.C. 103(a) as obvious over Andersson (WO 01/67021).

Andersson discloses a heat exchanger including several tray shaped plates (1) which are placed on top of one another, are sealed together on their peripheral edges (at 24) and are provided with passages (11, 22, 23), where continuous flow passages are each formed from the passages that lie essentially above one another, each flow channel that traverses the plates (Fig. 1), and where flow channels lying adjacent to one another are traversed by different media from an admission side to a discharge side (Fig. 1), each flow channel having an elongate cross section at the admission and discharge sides (Fig. 1), the flow channel being oval (12) or rectangular (22 or 23), adjacent flow channels (22 and 11) having different cross sectional shapes (Fig. 1), the heat exchanger being capable of use as a stacked plate cooler for a vehicle.

Andersson does not specify the length to width ratio of a passage. However, the drawings of Andersson appear to depict passages having the

specified length to width ratio (see Figs. 1, 6, 7). It is noted that the ratio of between 1.5 and 12 covers such a wide range than almost any oval or rectangle pipe capable of use as a passageway in such devices would be within this range. It would have been obvious to one of ordinary skill in the art to use any desired length to width ratio for the passages to be determined by the intended use of the device.

The newly added claims specifying more specific ratios, such as between 1.5 and 3, are considered to describe standard oval and rectangular shapes, such as those illustrated by Anderson. It would have been obvious to one of ordinary skill in the art to use any desired length to width ratio for the passages, to be determined by the intended use of the device.

3. Applicant's arguments filed 27 June 2008 have been fully considered but they are not persuasive.

The applicant argues that Anderson does not disclose flow channels having an elongate cross section at admission and discharge sides because Anderson depicts ports that are circular. However, the requirement that the flow channels have an elongate cross section at admission and discharge sides is not considered to require the use of non-circular ports leading into the device as a whole, since the flow channels are formed by the holes in the plates. If the claims were amended to require non-circular input and output ports, it is noted

that such structure is shown in Fig. 6b of the Angermann document (EP 1308685), of record.

The applicant argues that Anderson does not disclose flow channels having the specified cross section. It is noted that the ratio of between 1.5 and 12 covers such a wide range than almost any oval or rectangle capable of use as a passageway in such devices would be within this range. The newly added claims specifying more specific ratios, such as between 1.5 and 3, are considered to describe standard oval and rectangular shapes, such as those illustrated by Anderson. It would have been obvious to one of ordinary skill in the art to use any desired length to width ratio for the passages to be determined by the intended use of the device. If applicant is of the opinion that the specified ratios would produce tube shapes that are not conventional in the art or that would produce unexpected results, applicant is invited to present evidence to that effect.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 571-272-4790. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Teresa J. Walberg/
Primary Examiner, Art Unit 3744

/TW/